Objectives and Results: The aim of our study was to present a case of a leukemic patient with possible sphenoid sinus aspergilloma and to evaluate the diagnostic value of the detection of the GM antigen. Case report: A patient with AML (M4/FAB) is hospitalized with recurrence of the illness since September 2007. Since 15 November 2007, he has been presenting neutropenia. From the date of the admission until 28 November 2007, 51 cultures of several biologic materials were performed and 8 serum samples were examined for detection of the GM antigen, using a double sandwich assay ELISA (Sanofi Diagnostics Pasteur). All the laboratory tests found negative for fungi. At 29 November 2007 the patient presented paresis of the left abducens nerve and fever. At 30 November 2007 the serum sample for GM was positive (r=0.77, n.v<0.5) and the brain-splachnic skull CT showed almost complete takeover of the left sphenoid sinus from a solid mass. At 3 December 2007 GM was detected in CSF (strongly positive, r=7.18), as well as in a new serum sample (r=0.78).The CSF culture was negative, whereas the cytologic test ruled out the possibility of infiltration with leukemic cells. According to these findings and the possible diagnosis of aspergillosis, the patient was treated with liposomic amphotericin and caspofungin. Three more serum samples followed, until 10 December 2007, which were found positive for GM with progressively raising titre (r=2.61), whereas ups and downs of the titre were observed in 4 samples until 19 December 2007 (r=1.26-2.75).The detection of GM in CSF at 17 December 2007 was again strongly positive. *Aspergillus* was not isolated in any of the 14 cultures that were performed. The patient is being hospitalized under treatment, afebrile, in good shape and with stable x-ray findings.
Conclusions: The detection of GM antigen, in as many serum samples as possible from high risk patients, seems to contribute to early diagnosis and therapeutic management of *aspergillosis*.

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Influence of Central Venous Catheter Management on Outcome in Cancer Patients with Candidemia who Survived more than 72 Hours after the First Positive Blood Culture

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Background: Removal of central venous catheter (CVC) from patients with candidemia is considered to be the standard of care.
Objective: To evaluate the epidemiology and the impact of early versus delayed CVC removal on mortality of patients who survived more than 72h after the first positive blood culture.
Patients and Methods: Between January 2001 and June 2005 a prospective cohort study involving 192 hospitalized cancer patients with CVC and candidemia was conducted at a tertiary cancer center in Brazil. The study enrolled 164 patients who survived >3 days and had their catheters removed during the study period. Patients with CVC removal within 3 days of candidemia onset were classified as having an early CVC removal. Overall mortality was evaluated 30 days after the index positive blood culture.
Results: Early CVC removal occurred in 61% of cases (100 of 164) with a median removal time of 2 days (range 0-29 days). Patients with early CVC removal differed significantly from those with delayed CVC removal, and they were more often female, had poor performance status, other associated infected sites, short-duration catheter type, and previous history of bacteremia, total parenteral nutrition, and admission to intensive care unit. Multivariate analysis showed only the short-duration catheter type as significantly associated with early removal. Overall mortality rate was 10.4% (17 of 164). CVC removal within 72h did not show a favorable impact on mortality when compared with delayed removal (11% vs. 9.4%; P=0.94). Multivariate analysis revealed that adults, lymphoma, presence of comorbidities, use of steroid therapy, long-duration neutropenia (>7 days) after the first positive blood culture, and isolation of *C. glabrata*, *C. krusei* and *C. tropicalis* species from blood cultures were independently associated with death.
Conclusion: Despite the significant difference in clinical characteristics between patients with early and delayed CVC removal, only short-duration catheter type was independently associated with early removal. We were not able to demonstrate any beneficial impact of early CVC removal on mortality among patients who survived more than 72h after the index positive blood culture.

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Epidemiological Study of Trichosporonemia in Patients with Hematological Diseases in Japan

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Background: Disseminated trichosporonosis, caused by species of the fungus *Trichosporon*, develops in neutropenic patients and is described as a breakthrough infection that may develop even during the use of antifungal drugs. However, little is known about the current epidemiology of this disease. We organized an epidemiologic study of trichosporonosis to clarify the background and actual treatment of trichosporonemia in Japan.
Materials and Methods: We sent a questionnaire about disseminated trichosporonosis to 459 hospitals throughout Japan that have a physician specializing in hematology. Case reports with clinical information on past cases with blood culture yielding *Trichosporon* species from January 2000 to January 2008 were returned to us. The risk factors, presence/absence of breakthrough infection, outcome and efficacy of antifungal regimens for trichosporonemia were investigated using these case reports.
Results: We received 48 case reports of trichosporonemia from 28 institutions. The most common underlying disease was acute myeloid leukemia, which accounted for 62.5% (30) of cases. Of the 48 cases, 79.2% had neutropenia (polymorphonuclear leukocytes < 500/mm3). Prior to onset of infection, 87.5% (42 cases) had received several antifungal agents. The most common antifungal agent administered before onset of trichosporonemia was micafungin (28 of 42 cases; 66.7%), while 21 cases were administered this drug for more than two weeks. Although various treatment regimens were used for trichosporonosis, the mortality rate within 30 days was 70.8% in this study. Only voriconazole was significantly effective for survival over 30 days after detection of this fungi in blood (survival rate; 66.7%), compared with regimens without voriconazole (P<0.05).
Conclusions: Trichosporonosis is a life-threatening infection in cases of hematological malignancy, and is sometimes observed even during long-term administration of micafungin in Japan. *Trichosporon* species do not show sensitivity to echinocandin antifungal drugs, and thus trichosporonosis would develop as a breakthrough infection with the use of micafungin. This clinical data indicates that voriconazole is an effective agent for trichosporonosis in patients with hematological disease.